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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,860	09/24/2003	Shigeyasu Morihiro	08917-090001	4396
26161	7590	07/12/2005	EXAMINER	
FISH & RICHARDSON PC 225 FRANKLIN ST BOSTON, MA 02110			SASTRI, SATYA B	
			ART UNIT	PAPER NUMBER
			1713	
DATE MAILED: 07/12/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/669,860

Applicant(s)

MORIHIRO ET AL.

Examiner

Satya B. Sastri

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2003.
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-10 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/22/03, 4/1/04.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to application filed on September 24, 2003. *Claims 1-10* are now pending in the application.

Specification

2. The disclosure is objected to because of the following informalities:
 - On page 9, in the formula (II), R' group is ethylene and not methylene as stated in line 7.

Appropriate correction is required.

Claim Objections

3. *Claims 4, 9* are confusing and the language may be modified/simplified to imply that appropriate raw materials for the different monomers are copolymerizable.

Claim Analysis

4. Before the outstanding rejections are discussed, the following analysis of preamble to claims has been made:

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- It is the Examiner's opinion that the preamble language does not provide the antecedent basis for terms in the body of the claim.
- It is the Examiner's opinion that the language of the body of the claim sets out the complete invention.
- It is the Examiner's opinion that the preamble language merely provides a statement of purpose or intended use.
- It is the Examiner's opinion that the preamble language is not essential to understand limitations and/or terms in the claim body.

The phrase "for water-based vibration damper" in the preamble is viewed as intended use and therefore, not given patentable weight.

Claim Rejections - 35 USC § 102 and 103

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. *Claims 1, 2, 4-7, 9, 10* are rejected under 35 U.S.C. 102(b) as anticipated by Tonge (US 4,764,554).

Prior art to Tonge discloses thickeners comprising (a) 25-45% of methacrylic acid, acrylic acid or mixtures thereof, (b) 25-65% of alkyl acrylate (c) 1-40% of an ester composition such as an ethoxylated maleate with C₁₂ to C₂₅ alkyl group (d) 0-1% polyethylenically



unsaturated monomers and optionally, (e) up to 10% of an ethylenically unsaturated hydrophilic monomer (abstract, column 2, lines 10-65). Additionally, the thickeners may be used for emulsion paints and show excellent compatibility with the pigments (column 2, lines 66, 67 and column 3, lines 1-7). Working example in column 4 discloses an emulsion paint comprising the thickener, fillers, pigments and vinyl acetate copolymer emulsion.

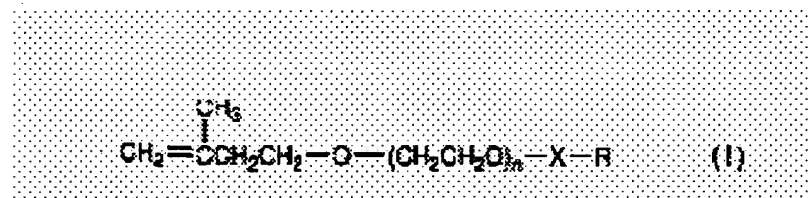
It is the examiner's position that the R'' group with C₁₂ to C₂₅ alkyl chain is sufficiently detached from the main chain and thus would facilitate association.

With regard to *claims 4 and 9*, components (b), (d) or (e) may be the additional monomer that may be derived from the corresponding unsaturated acid and alcohol. It is the examiner's position that such ethylenically unsaturated acids must be capable of copolymerizing with appropriate ethylenically unsaturated monomers that could serve as raw materials for components (a) i.e. acrolein or propylene and (b) i.e. maleic acid.

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8. *Claims 1-5* are rejected under 35 U.S.C. 102(b) as anticipated by JP 2001240630A (Derwent abstract and machine translation).

Prior art to JP '630 discloses an alkali soluble copolymer useful as a thickener and comprising an acid-containing monomer, and an alkenylether of the formula given below where n is the range of 10-300 and R has 6-30 carbon atoms (page 2, line 1).



Comonomer (1) may be used in amounts ranging from 0.01 to 4 mole% (page 2, paragraph 0011) and the alkali-soluble monomer may be used in 10-70 mole% range (page 3, paragraph 0012). Additionally, further ethylenically unsaturated monomers disclosed in paragraph 00114 may be used in amounts ranging from 30 to 90 mole% (paragraph 0015). Thus *claims 1-5* are anticipated by the prior art.

9. *Claims 6-10* are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2001240630A in view of Nkansah et al. (Us 5,814,374).

Prior art to JP '630 is elaborated above in paragraph 8 and is incorporated herein by reference.

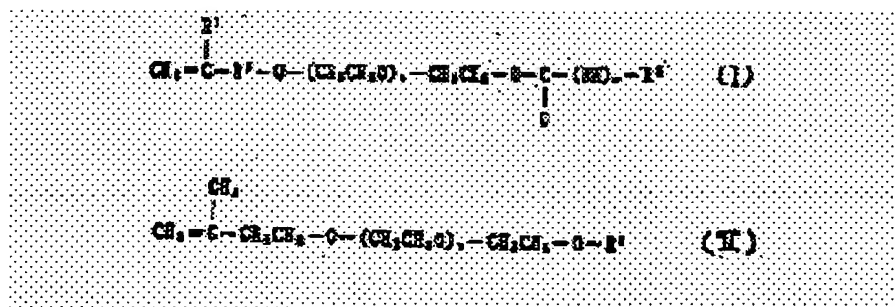
The difference between the prior art and the instant invention is that the prior art does teach a composition comprising a thickener, a water-based latex polymer and an inorganic filler.

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The prior art to JP '630 teaches the use of the disclosed thickeners in paints in general without specific details on the paint composition ((DERWENT ABSTRACT). However, aqueous paint compositions are well known in the coating art. For instance, the secondary reference to Nkansah et al. discloses aqueous coating compositions prepared by conventional paint making techniques which are well known in the coatings art. First, the pigment and other adjuvants are well-dispersed in an aqueous medium to which the latex polymer is added along with other coating adjuvants as desired. The aqueous coating composition may contain, in addition to the polymers, conventional coatings adjuvants such as, for example, pigment, emulsifiers, thickeners, humectants, fillers, curing agents, wetting agents, biocides, anti-foaming agents, colorants, waxes, and anti-oxidants (column 4, lines 10-25). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include thickeners as disclosed by JP '630 in the coating compositions of Nkansah et al. and thereby obtain the instant invention.

10. *Claims 1-10* are rejected under 35 U.S.C. 102(a) as anticipated by JP 2002-013096 (Derwent abstract and machine translation).

Prior art disclosed in '096 concerns thickeners based on (A) a (meth)acrylic acid unit, (B) a (meth)acrylate unit and (C) compounds represented by the general formula (I) and (II)



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(R is H or methyl; R₂ is a divalent hydrocarbon or carbonyl, R₃ is an 8-30C hydrocarbon; (m) is 0 or 1; and 9n) is an integer 10-100 (paragraphs 0011-0018). The thickeners may be used for thickening latex binders such as those disclosed in paragraph 0010 and pigments such as clay, calcium carbonate, zinc oxide etc. (paragraph 0009). The ratio of component (A) and (B) ranges from 10:90 through 60:40. Component (C) ranges from 0.1 to 50 wt.% of the copolymer (paragraphs 0018-0019). Thus, the instant claims are anticipated by the prior art.

With regard to *claims 4 and 9*, the (meth)acrylate monomer that may be derived from the corresponding unsaturated acid and alcohol. It is the examiner's position that such ethylenically unsaturated acids must be capable of copolymerizing with appropriate ethylenically unsaturated monomers that could serve as raw materials for components (a) i.e. acrolein or propylene and (b) i.e. maleic acid.

11. *Claims 1, 2, 6, 7* are rejected under 35 U.S.C. 102(b) as anticipated by Kuropka (US 5,705,553).

Prior art to Kuropka discloses copolymers containing carboxyl groups and their use as thickeners in aqueous formulations. The copolymers may include 24 to 98.9% by weight, of monomers with carboxyl groups and 0-25 of acrylic monomers with ethylene oxide units and C₁-C₂₀ alkyl groups at the terminals (column 4, lines 56-67, column 5, lines 1-5, column 6, lines 54-65 and column 7, lines 1-22). The thickeners are preferably used in aqueous emulsion paints and in other compositions which may include auxiliaries, additives, pigments etc. (column 10, lines 56-67, column 10, lines 14-26).

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12. *Claims 1, 2* are rejected under 35 U.S.C. 102(b) as anticipated by Kernstock (US 4,552,685).

The disclosure of Kernstock is in regard to aqueous compositions thickened by copolymers of an ethylenically unsaturated carboxylic acid, a nonionic chain extender and nonionic vinyl surfactant ester (abstract). Monomer structures presented in column 2, lines 40-69, column 6, lines 15-34 include acrylic monomers with ethylene oxide units and C8 to C20 alkyl groups. Thus, composition as recited in the instant claims read on the prior art.

13. The prior art made of record is considered pertinent to applicant's disclosure. Prior art to Bohme et al. (US 3,890,292), Fujikake et al. (EP 1,209,198 A1), Chang et al. (US 4,230,844), Shay et al. (US 4,801,671) and Mondet et al. (US 5,324,765) all disclose thickeners based on an alkali-soluble monomer and an associating monomer and can thus be used to reject instant claim 1.

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Satya Sastri at (571) 272 1112.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached at (571) 272 1114.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



SATYA SASTRI

May 24, 2005

TATYANA ZALUKAEVA
PRIMARY EXAMINER

